

REMARKS

Claims 2-32, 35 and 36 are pending in the application. Claims 12 and 21 have been amended. Claims 2-11, and 28 are allowed.

Applicant acknowledges and appreciates that the Examiner has allowed claims 2-11 and 28.

The Examiner maintains the rejection of claims 12-27, 29-32, 35 and 36 as unpatentable over a combination of at least *Samson* (US 5,881,102) and *Wiese* (US 6,434,119). Applicant respectfully traverses this rejection.

The Applicants have demonstrated in the previous Response to Office Action that *Samson* and *Wiese*, when considered alone or in combination, do not teach one or more of the features of the pending claims. Indeed, the Examiner has properly allowed method claims 2-11 based on the Applicant's arguments. Even though other pending apparatus claims also include parallel functional language as the allowed method claims, the Examiner nevertheless argues that this functional language alone is not sufficient to distinguish apparatus claims from the prior art references. According to the Examiner, the apparatus claims must be structurally (as opposed to functionally) distinguishable from prior art. The Examiner cites to Section 2114 of the MPEP in support of this rejection. As explained below, the Examiner's reliance on Section 2114 is misplaced and based on a misunderstanding of the applicable law.

The Examiner's argument seems to be based on the following statement from Section 2114 of MPEP: “[w]hile features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function.” The MPEP cites to *In re Schreiber* in support of this statement. The cited statement, however, does not support the Examiner's position that functional language

in an apparatus claim carries no weight. To the contrary, the statement expressly recognizes that apparatus claims can be recited either structurally or functionally. *See* Section 2114 (stating “features of an apparatus may be recited either structurally or functionally”) (emphasis added). Indeed, a review of *In re Schreiber* (the case relied upon by MPEP), confirms this point. In particular, the *Schreiber* Court states: A patent applicant is free to recite features of an apparatus either structurally or functionally. *In re Schreiber*, 128 F.3d 1473, 1479 (emphasis added). Thus, to the extent the Examiner is suggesting that apparatus claims cannot be recited in functional terms (or that functional terms carry no weight), the Examiner’s position is inconsistent with the MPEP and case law (*e.g.*, *In re Schreiber*).

While section 2114 of the MPEP does state that “apparatus [claims] must be distinguished from the prior art in terms of structure rather than function,” the Examiner appears to read this statement out of context by ignoring the statement that immediately follows it. The next statement provides the necessary context by explaining that the structural limitation of an apparatus claim must distinguish the prior art if the prior art discloses the functional limitations (either explicitly or implicitly). *See* MPEP 2114 (stating “that the absence of a disclosure in a prior art reference relating to function did not defeat the Board’s finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference). That is, if the functional language is inherent in the prior art reference, then the prior art reference will be anticipating if the structure of the claims is not distinguishable. Thus, to the extent the functional limitation of an apparatus claim is disclosed (implicitly, for example) in the prior art, then it is true, as noted in MPEP 2114, that apparatus claims must be distinguished from the prior art in terms of structure rather than function to avoid anticipation.

A review of *In re Schreiber* confirms the Applicant's point. As noted previously, the *Schreiber* Court explicitly recognized that apparatus claims can be expressed in structural or functional terms. The issue before the *Schreiber* Court was whether the functional limitations in an apparatus claim gave the claim patentable weight. The Court ultimately concluded that they did not, but not because the limitations were "functional" in nature (as the Examiner contends), but rather "because those limitations were found to be inherent in the *Harz* prior art reference." See *In re Schreiber*, 128 F.3d at 1478 (emphasis added). Thus, the *Schreiber* case stands for the proposition that when the recited functional limitations are inherent in the prior art, then the apparatus claims must be distinguishable based on structure, otherwise there is nothing patentable. In the instant case, the recited functional limitations are not inherent in *Samson* and *Wiese*, and, indeed, the Examiner has properly conceded that these references do not disclose or suggest the functional features (as evidenced by the allowed method claims 2-11). Because the recited functional language in the apparatus claims is not inherent in the cited references, the apparatus claims are allowable over the cited references.

The apparatus claims are allowable for another fundamental reason. The apparatus claims in the instant case recite structure (e.g., logic or transceiver) that perform functions (or acts) that are **not** disclosed or suggested in Samson or Wiese. Thus, by definition, neither *Samson* nor *Wiese* can disclose the same structure as that recited in the claims. That is, a structure that performs a particular act (such as that recited in the instant claims) are inherently distinguishable from a structure that performs a different function. Thus, the Examiner's contention that *Samson* and *Wiese* disclose the structural limitations of the apparatus claims is without merit.

Pending Claims are Not Obvious in View of Samson and Wiese

For reasons discussed below, the rejected claims are not obvious in view of **Samson** and **Wiese**, when considered alone or in combination.

For ease, claim 21 is discussed first. Claim 21 is directed to a system that comprises a first transceiver and a second transceiver. The second transceiver is capable of establishing a communication channel with the first transceiver in a low power mode; determining the training parameter in response to establishing the communication channel in the low power mode; performing training based at least on the training parameter; and providing the training parameter to the first transceiver.

The Examiner argues that **Samson** discloses determining a training parameter at the first transceiver insofar as it discloses training “by flagging for software or through flip flop for hardware.” *See Office Action*, p. 4. However, neither flagging of the software or a flip flop of the hardware is provided to the remote transceiver (*e.g.*, first transceiver), as called for by claim 21. The Examiner’s rejection is flawed for at least this reason.

The Examiner also appears to suggest that the “state signal” in **Samson** corresponds to a “training parameter” of claim 21. *See Office Action*, p. 4. The Examiner’s rejection is erroneous for several reasons. First, the “state signal” in **Samson** is not used to perform training. Rather, as explained in **Samson**, this signal is used to indicate to a modem that a low power mode is being entered and that the components of the modem should be shut down. *See Samson*, 6:43-47 (stating that the state machine 64 sends a “signal over data path to the remainder functional units of the modem, namely the DSP and microprocessor, that a low power mode is being entered and thus those components must shut down”). The training in **Samson** occurs in high power mode, not low power mode, which is what claim 21 calls for. *See Samson*, 4:19-22 (stating that high compute power (that is, a high power mode) is required when the

modem is...continually training its heuristic compensation functions.") (emphasis added). Because the training in **Samson** occurs in the high power mode, the “state signal” (which is used to indicate a low power mode) is not and cannot be a “training parameter” of claim 21.

Finally, the “state signal” in **Samson** cannot correspond to the “training parameter” of claim 21 for an additional reason. This is because the “state signal” in **Samson** is not sent to the second modem, whereas claim 2 calls for providing the training parameter to the first transceiver. The Examiner cites to col. 5, lines 51-53 from **Samson** in support of his position. The cited passage states that a state signal is sent to a remote device (not a remote modem). The reference to the “remote device” is to the various devices (or components) (such as a DSP and microprocessor) of a given modem, and not to a remote modem, as the Examiner alleges. For example, **Samson** describes, at col. 6, lines 43-48, that the “ping pong state machine 64” sends the signal to the remainder of the functional units of the same modem, namely the DSP or the microprocessor of that modem to shut down these components. Thus, contrary to the Examiner’s assertion, the “state signal” is not transmitted from one modem to another, but rather is transmitted within a given modem to shut down various functional components of that modem. Indeed, **Samson** refers to the output of the ping pong state machine 64 as a “power down command.” *See Samson*, 6:48-49 (stating that the “power down command” from the ping pong state machine 64 is supplied to DSP 20). Moreover, one need not look past Figure 3 of **Samson** to confirm that the ping-pong state signal is not transmitted from one modem to another, as alleged by the Examiner. As shown in Figure 3, each modem of the telephone network 14 has its own respective CODEC 48, 51, and each of these CODECs 48, 51 has its own ping pong 64, 84 for generating the state signal. As such, the “state signal” (“training parameter,” according to the Examiner) is not transmitted from one modem to another. For this additional reason, the

Examiner's reliance on ***Samson*** is erroneous. The other references cited by the Examiner do not cure the deficiencies of ***Samson***.

In light of the arguments presented above, Applicant respectfully asserts that claim 21 and its dependent claims are allowable. Additionally, the remaining claims are also allowable for one or more reasons recited above. Accordingly, a Notice of Allowance is respectfully solicited.

The Examiner is requested to call the undersigned attorney at the Houston, Texas telephone number (713) 934-4064.

Respectfully submitted,

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